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Remarks

Claims 1, 3-10 and 12-20 were pending in the application. Claim 8 has been canceled.

Claim 16 is objected to because "a optical signal" in line 13 on page 4 should be "an optical signal."

Claims 1, 3, 6-7, 10, 12, and 20 are rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,423,963 B1 issued to Wu.

Claims 1, 4-5, 8-10, and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,483,616 B1 issued to Maddocks et al. in view of United States Patent No. 4,833,668 issued to Rowley et al.

Claims 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,504,630 issued to Czarnocha et al. in view of U.S. Patent No. 4,833,668 issued to Rowley et al.

Each of the various rejections is overcome by various amendments and arguments that are presented.

Entry of this Amendment is proper under 37 CFR § 1.116 since the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; or (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code

or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewriting to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

Objection to Claim 16

Claim 16 is objected to because "a optical signal" in line 13 on page 4 should be --an optical signal--. Applicants have amended claim 16 as suggested by the Examiner and, as such, the Examiner's rejection is moot and should be withdrawn.

Rejection Under 35 U.S.C. 102(e)

Claims 1, 3, 6-7, 10, 12, and 20 are rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,423,963 B1 issued to Wu.

This ground of rejection is respectfully traversed.

Applicants' currently amended independent claims 1, 10 and 20 include the limitation of "restoring the power level of the optical signal in response to the presence of the counter-propagating supervisory signal." This feature was in claim 8, which is now

canceled. The Office Action did not reject claim 8 using Wu. Thus, as correctly stated in the Office Action, Wu does not teach or suggest this limitation.

Since all of the rejected dependent claims that depend from the current amended independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Wu. Therefore, claims 1, 3, 6-7, 10, 12, and 20 are allowable over Wu under 35 U.S.C. §102.

Rejections Under 35 U.S.C. 103(a)

Claims 1, 4-5, 8-10, and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,483,616 B1 issued to Maddocks et al. in view of United States Patent No. 4,833,668 issued to Rowley et al.

This ground of rejection is respectfully traversed.

Independent claims 1 and 10 include the feature, "restoring the power level of the optical signal in response to the presence of the counter-propagating supervisory signal." Maddocks et al. does not teach or suggest that limitation, which was in claim 8. The Office Action states in column 3, lines 44-58, Maddocks et al. discloses that feature. That section discloses using the system of Maddocks et al. with a single optical fiber carrying bidirectional traffic. That system has to include an identification signal because damage or break to the fiber will cause a reflection and thus the system will receive that identification signal. Maddock et al. does not teach or suggest the restoring the power level as claimed.

The Office Action does not supply Rowley et al. to show "restoring the power level of the optical signal in response to the presence of the counter-propagating supervisory signal." Applicants agree that Rowley et al. does not teach or suggest that feature.

Thus, Maddocks et al. and Rowley et al., singly or in combination, do not teach or suggest "restoring the power level of the optical signal in response to the presence of the counter-propagating supervisory signal." As such, applicants submit that independent claims 1 and 10 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

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Moreover, as stated in the previous response, independent claims 1 and 10 include the limitation of reducing the power level of an optical signal propagating in an optical fiber path in response to the absence of a counter-propagating supervisory signal in the optical fiber path.

Maddocks et al. discloses, in column 3, lines 43-58, that in a bi-directional single optical fiber optical communication system, the system of Maddocks et al. would have to be modified to responding to a supervisory signal containing a unique identifier. Thus, the bi-directional fiber system of Maddocks et al. teaches using identifier signal in the supervisory signal to indicate a break in or damage to the fiber and teaches away from reducing power in response to the absence of a counter-propagating supervisory signal.

Thus, the combination of Maddocks et al. and Rowley et al. would require the sending of an identification signal. Maddocks et al. explicitly teaches that in a bi-directional single fiber system, the identification signal has to be included. Therefore, Maddocks teaches away from responding to absence of signal in a bi-directional single fiber system. As such, Applicants submit that independent claims 1, and 10 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Furthermore, claim 8 has been canceled. Claims 4-5, 9, and 13-15 depend, either directly or indirectly, from independent claims 1 and 10 and recite additional features thereof. As such, and at least for the same reasons set forth above with respect to applicants' independent claims 1, and 10, applicants submit that these claims are also non-obvious and allowable under 35 U.S.C. §103. Therefore, Applicants respectfully request that the rejection be withdrawn.

Claims 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,504,630 issued to Czarnocha et al. in view of U.S. Patent No. 4,833,668 issued to Rowley et al.

This ground of rejection is respectfully traversed.

Independent claim 16 recites, "responding to the absence of the counter-propagating supervisory signal obviates a need for the downstream element to notify the network element of a fault in the optical fiber path." As stated in column 5, lines 34-46, Czarnocha et al. uses a controller and supervisory unit of the downstream element to shut off the amplifier to emulate a fiber cut. This method uses the lack of a signal to notify

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the upstream element. This method lacks the advantage of not needing the notification where, as stated on page 5, lines 12-15 of the specification, the power is reduced within 250 to 300 milliseconds which is much quicker than the conventional system that takes as long as 3 seconds.

Rowley also does not teach or suggest, "responding to the absence of the counter-propagating supervisory signal obviates a need for the downstream element to notify the network element of a fault in the optical fiber path."

Thus, Czarnocha et al. and Rowley et al., singly or in combination, do not teach or suggest, "responding to the absence of the counter-propagating supervisory signal obviates a need for the downstream element to notify the network element of a fault in the optical fiber path."

As such, Applicants submit that independent claim 16 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Furthermore, claims 17-19 depend, either directly or indirectly, from independent claim 16 and recite additional features thereof. As such, and at least for the same reasons set forth above with respect to Applicants' independent claim 16, Applicants submit that these claims are also non-obvious and allowable under 35 U.S.C. §103. Therefore, Applicants respectfully request that the rejection be withdrawn.

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Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully,

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By

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